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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,375	12/14/2001	Harinath Garudadri	010331	8079

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Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
San Diego, CA 92121-1714

EXAMINER

OPSASNICK, MICHAEL N

ART UNIT PAPER NUMBER

2655

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/017,375	GARUDADRI ET AL.	
	Examiner	Art Unit	
	Michael N. Opsasnick	2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 March 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/22/2002</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "System and Method for Transmitting Speech Activity Information Ahead of Speech Features in a Distributed Voice Recognition System"

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: On page 11 of the specification, last paragraph, numerous numerical references to Fig. 3 are shown, but these labels do not appear in Fig. 3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Kay et al (5703881).

As per claim 1, Kay et al (5703881) teaches:

“A subscriber unit, comprising:” as a multi-subscriber unit (Fig. 1, subblock 22);

“a feature extraction module configured to extract a plurality of features of a speech signal” as speech data in PCM format (col. 7 lines 5-6);

“a voice activity detection module configured to detect voice activity within the speech signal and provides an indication of the detected voice activity” as voice activity detector (VAD – 56) detects voice/speech (col. 7 lines 5-10);

“a transmitter coupled to the feature extraction module and the voice activity detection module and configured to transmit the indication of detected voice activity ahead of the plurality of features” as first reporting the voice activity to the MSU controller, then based on that activity, the MSU controller calls for the compressed speech data, based on the type of voice activity detected (col. 7 line 30-36).

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As per claim 2, Kay et al (5703881) teaches:

“A subscriber unit, comprising” as a multi-subscriber unit (Fig. 1, subblock 22)

“means for extracting a plurality of features of a speech signal” as speech data in PCM format (col. 7 lines 5-6);

“means for detecting voice activity with the speech signal and providing an indication of the detected voice activity” as voice activity detector (VAD – 56) detects voice/speech (col. 7 lines 5-10);

“a transmitter coupled to the feature extraction means and the voice activity detection means and configured to transmit the indication of detected voice activity ahead of the plurality of features” as first reporting the voice activity to the MSU controller, then based on that activity, the MSU controller calls for the compressed speech data, based on the type of voice activity detected (col. 7 line 30-36).

As per claims 3,4, Kay et al (5703881) teaches:

“further comprising a means for combining the plurality of features with the indication of detected voice activity, wherein the indication of detected voice activity is ahead of the plurality of features” as an embodiment of the speech VAD, speech extraction/compression functions are combined together (col. 7 lines 9-12; Fig. 6a).

As per claim 5, Kay et al (5703881) teaches:

Art Unit: 2655

“A method of transmitting speech activity, comprising:” as transmitting of speech information (col. 6 line 65 – col. 7 line 4);

“extracting a plurality of features of a speech signal” as speech data in PCM format (col. 7 lines 5-6);

“detecting voice activity within the speech signal and providing an indication of the detected voice activity, and” as voice activity detector (VAD – 56) detects voice/speech (col. 7 lines 5-10);

“transmitting the indication of detected voice activity ahead of the plurality of features” as first reporting the voice activity to the MSU controller, then based on that activity, the MSU controller calls for the compressed speech data, based on the type of voice activity detected (col. 7 line 30-36).

As per claim 6, Kay et al (5703881) teaches:

“A method of transmitting speech activity, comprising:” as transmitting of speech information (col. 6 line 65 – col. 7 line 4);

“extracting a plurality of features of a speech signal” as speech data in PCM format (col. 7 lines 5-6);

“detecting voice activity with the speech signal and providing an indication of the detected voice activity; and” as voice activity detector (VAD – 56) detects voice/speech (col. 7 lines 5-10);

“combining the plurality of features with an indication of the detected voice activity, thereby creating a combined indication of detected voice activity and features, wherein the

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indication of detected voice activity is ahead of the plurality of features.” as first reporting the voice activity to the MSU controller, then based on that activity, the MSU controller calls for the compressed speech data, based on the type of voice activity detected (col. 7 line 30-36), and an embodiment of the speech VAD, speech extraction/compression functions are combined together (col. 7 lines 9-12; Fig. 6a).

As per claim 7, Kay et al (5703881) teaches:

“further comprising transmitting the combined indication of detected voice activity and features.” as an embodiment of the speech VAD, speech extraction/compression functions are combined together (col. 7 lines 9-12; Fig. 6a).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

McKenna et al (6408180) teaches transmission of control signal before voice/data in a wireless system.

Cashman (6157830,6850774), Gardner (6370135) teaches call control parameters transmitted before voice data.

Soury et al (5054042) teaches VAD circuit transmitting information before speech information.

Des Blache et al (4672669) teaches transmission of spectral features and VAD information.

Ritz et al (5619493,5737358) teaches VAD detection to control transmission of channel information.

Garner (6427134) teaches the use of alternative transmitted VAD signals

Bourk et al (6259916) teaches VAD in a baseband processor following transmission protocols.

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Berry et al (5758256) teaches VAD transmission before packet transmission

Shaffer et al (6707821) teaches voice/data packet discrimination information.

6. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks .

Washington, D.C. 20231

or faxed to:

(703) 872 9314,

(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal

Drive, Arlington, VA., Sixth Floor (Receptionist).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Opsasnick, telephone number (571)272-7623, who is available Tuesday-Thursday, 9am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor, Mr. David Ometz, can be reached at (571)272-7593. The facsimile phone number for this group is (571)272-7629.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2600 receptionist whose telephone number is (571) 272-2600, the 2600 Customer Service telephone number is (571)272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mno

5/25/05



Michael N. Opsasnick

Examiner

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